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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,163	07/25/2003	Andreas Seidel	PO-7780/LeA 36,132	2512

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EXAMINER	
THEXTON, MATTHEW	

ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/627,163	SEIDEL ET AL.	
	Examiner	Art Unit	
	Matthew A. Thexton	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☒ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *two sheets*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 2002 November 21. It is noted, however, that applicant has not filed a certified copy of the 10254549.9 application as required by 35 U.S.C. 119(b).

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The disclosure is objected to because of the following informalities: Page 2, line 28, the word "monophates" appears to be a misspelling.

Appropriate correction is required.

Claim Version

The claims as submitted were examined.

Claims Analysis

Claim 1 is directed to thermoplastic molding mixtures comprising:

A) 40-90 parts by weight of aromatic poly(ester) carbonate having weight average molecular weight ≥ 25,000 g/mol;

B) 0.5-12 parts by weight polyalkylene terephthalate;

C) 1-20 parts by weight grafted elastomer consisting of:

10-90 weight percent of a base having a glass transition temp below 0C, and, 90-10 weight percent of vinyl monomer graft having at least 20 weight percent acrylate monomers;

D) 2-20 parts by weight oligomeric organic phosphoric acid ester; and

E) 0-1 parts by weight fluorinated polyolefin;

wherein the sum of A) to E) is 100.

Dependent claims 2-15 and 19 further specify the molecular weight of A), the viscosity of B), the type of elastomer, the type of graft monomer, the amount of acrylate monomer, the type of D), narrower weight ranges, that B) is polyethylene terephthalate, that C) has core-shell morphology.

Claim 17 depends from claim 1 and recites a molded article comprising the mixture of claim 1.

Independent claim 16 has all the limitations of claim 1 and further comprises

F) 0-10 parts by weight of at least one additive selected from the group consisting of lubricants, mold-release agents, nucleating agents, antistatic agents, stabilizers, colorants, fillers, reinforcing agents, flameproofing agents other than D), and flameproofing synergists.

Claim 18 depends from claim 16 and recites a molded article comprising the mixture of claim 16.

Claim 20 depends from claim 16 and recites that C) has core-shell morphology.

35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US 6174943-B1).

The present claims are broadly discussed hereinabove in the section ***Claims Analysis*** which is incorporated by reference.

The reference '943 discloses flame-retarded thermoplastic molding mixtures comprising components corresponding to Applicant's components A) through D), and employs silicate compounds as flame-retardant. In the Background (column 1, line 61 to column 2, line 16) it is stated that there are possible economic and environmental

reasons to avoid fluorinated polyolefins (Applicant's component E)). '943 further suggests that fluorinated polyolefins, such as PTFE, may be employed at about 0.005 to 1 parts by weight to further improve the drip-preventing effect. Examples 16, 33, 42, and 46 employ PTFE. Component A) is suggested to have viscosity average molecular weigh of 10,000 to 60,000 (column 4, lines 44-52), and examples included 28,800 and 25,000 (column 15, lines 5-11). Component B) is suggested to be present at 0.01 to 50 percent of A), be defined by its intrinsic viscosity, and may be PET (column 6, lines 1-30). Component D) is defined similarly to Applicant's component D) (column 8, line 16 to column 10, line 65). Component E) is defined similarly to Applicant's component C), grafted elastomer (column 10, line 66 to column 13, line 5), including the glass transition temperature (paragraph bridging columns 10-11), vinyl acrylates, vinyl cyanides. Component C) is silicate compounds, which are not excluded by Applicant's "comprising" mixture. It would have been obvious to one of ordinary skill in the art at the time of the invention to follow the suggestions of '943 which includes components in overlapping ranges and with overlapping physical properties with Applicant's claimed ranges and physical properties, to obtain moldable mixtures and molded articles having physical properties such as physical appearance and flame-retardancy and anti-dripping which are expected based upon the discussions in '943.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckel et al. (EP 0594021-A2, as evidenced by US 6590015-B1).

The present claims are broadly discussed hereinabove in the section ***Claims Analysis*** which is incorporated by reference.

The reference '015 (the US will be relied upon) discloses flame-retarded thermoplastic molding mixtures comprising components corresponding to Applicant's components A) through E). Component A), 40-98 parts by weight, is suggested to have average molecular weigh of 10,000 to 200,000 (column 3, lines 45-49). Component B), 0.5-40 parts by weight, is defined by its intrinsic viscosity, and may be PET (column 9, lines 36-40). Component C), 0.5-40 parts by weight, grafted elastomer is suggested to have a base with glass transition temperature below –10C with various acrylates suggested as grafting monomers (column 4, line 49 to column 6, line 67). Component D), 0.5 to 20 parts by weight, is defined similarly to Applicant's component D) (column 7, lines 1 to 32). Component E), 0.05 to 5 parts by weight, is defined similarly to Applicant's component E), (column 7, line 33 to column 8, line 38). It would have been obvious to one of ordinary skill in the art at the time of the invention to follow the suggestions of '015 which includes components in overlapping ranges and with overlapping physical properties with Applicant's claimed ranges and physical properties, to obtain moldable mixtures and molded articles having physical properties such as notched impact strength, stress cracking resistance, and flame-retardancy which are expected based upon the discussions in '015.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyama et al. (JP 08-073692-A, as evidenced by JPO machine translation, and USPTO obtained translation of the Tables).

The present claims are broadly discussed hereinabove in the section ***Claims Analysis*** which is incorporated by reference.

The reference '692 (the JPO translation will be relied upon) discloses flame-retarded thermoplastic molding mixtures comprising components corresponding to Applicant's components A) through E). In the specification and claims the designations correspond directly; the abstract differs in designations used to identify components but all the components are there.

Component A), 100 parts by weight when combined with B), is suggested to have viscosity average molecular weigh of 16,000 to 29,000 (paragraph 0010). Component B), 10/90 to 25/75 relative to A), is defined by its intrinsic viscosity, and may be PET (paragraph 0011-0012). Component C), 1-10 phr relative to A+B, grafted elastomer is suggested to have an elastomer base with various acrylates suggested as grafting monomers (paragraphs 0013-0020, especially 0019). Component D), 2 to 10 phr relative to A+B, is defined similarly to Applicant's component D) (paragraphs 0021-0029). Component E), 0.05 to 2 phr relative to A+B, is defined similarly to Applicant's component E), (paragraphs 0030-0031). Note examples 3 and 5 employ all of the components. The glass transition temperature of "MB resin" of examples 3 and 5 (see paragraph 0034) is not stated, but it is reasonable to conclude that it is an elastomer with a glass transition temperature below around 0C. It would have been obvious to

one of ordinary skill in the art at the time of the invention to follow the suggestions of '692 which includes components in overlapping ranges and with overlapping physical properties with Applicant's claimed ranges and physical properties, to obtain moldable mixtures and molded articles having desired physical properties (paragraph 0008) which are expected based upon the discussions in '692.

Citation of Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Koyama et al. (US 5871570-A) appears to be cumulative to Koyama et al. (JP 08-073692-A) where comparative example 6 corresponds to '692 example 3.

Eckel et al. (US 6569930-B1) discloses mixtures with components corresponding to A, and C-F. There is no disclosure or suggestion to employ polyalkylene terephthalate as required by Applicant's claims.

Eckel et al. (US 6441068-B1) discloses mixtures with components corresponding to A, and C-F. There is no disclosure or suggestion to employ polyalkylene terephthalate as required by Applicant's claims.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew A. Thexton whose telephone number is 571-272-1125. The examiner can normally be reached on Monday-Friday, 9:30 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasudevan S. Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. A. Thexton

Matthew A. Thexton
Primary Examiner
Art Unit 1714